Provider Center Type

- **These are use cases, not necessarily institutions.**
  - A data center may ACT as a certain class of provider depending upon
    - Mission
    - Users supported
    - Data Set?
  - Applications Data Centers

  - Richard McKinney
  - Roberta Rand
  - Chris Lenhardt - SEDAC
  - Hank Wolf
  - Nadine Alameh
  - Jean Bedet
  - Howard Burrows - ESSIP
  - Silvia Natel - UME
  - Richard Ullman

1. Is our approach (minimum, recommended, desired) to setting levels of service appropriate from your perspective? Are there better approaches you could suggest?

- **Two sides to this question**
  - appropriate to defining services required of applications centers?
  - Approach for building a cost estimation tool.

1. a. appropriate to defining services required of applications centers?

- **At first we thought we might agree with the idea of minimum services**
- **Refinement: Not just one user group, can't lump service level by centers.**
  - Necessary to characterize user groups
  - Science, commercial, education, public
  - Look at each user group to find appropriate levels of service for them (for this collection of data sets).
  - Rank user groups as the targets of this application.
  - Spend money according to their needs.
  - This was a theme of the NRC DAAC review "know your users"
- **Functions are not for a data center they are for a collection of data sets. [term?]**
  - If a data center is going to do one part then they must do the minimum for that part.
  - Look at the role that the particular data center is playing in this particular case

Alternate Approaches

- **Best practices should drive levels of services, not the data product stream.**
  - Certain ways of providing service may have better results.
  - How do we assure that bidders understand all the aspects?
  - Example: cost of security, an established data center may take this for granted, but a new bidder might not. Omitting security may result in a low bid.
- **How do we incorporate changing needs**

2. Are the minimum levels of service for this provider type adequate to meet your research needs?

- These level of service indicators do not seem to be linked directly to science.
- What if you deliver in 30 seconds, but the form is such that the user needs to spend several hours to use? Contrast to delivery in 30 minutes but can be directly used in target application.
- Applications centers are so diverse that it's difficult to find parameters for levels of service.
- How easy is it to put data together
- For application centers to work, other centers may need to provide certain levels of service.
  - How do you afford?
  - But maybe translation to that form is the job of answering the question. Could be data provider, application center or third party
- Scenario:
  - Public health official asks question
  - Applications market place responds to opportunity

Alternate Approach- Science Drivers - Answer a Question

- **Levels of services in answering a question:**
  - collect a repository of questions for application
  - What's the value of finding answers to these questions?
  - How well and timely can the application center answer these questions?
- **Levels of service have to be evaluated in a different way - how flexibly can you answer the question**
  - At different resolution
  - In different locations
  - In different projections
  - Using multiple data sources - data integration
- **There might be a sparse matrix of capabilities and you want to look at ways to fill in the blank spaces.**
- **Use a market to drive:**
  - Haven't completed this discussion.

ISSUES:

- Historically NASA has provided global data. Is it appropriate to try to use these resources for regional and local application.
- Where is the end of SEEDS and the start of what SEEDS is serving?
- If you ask the question is GIS output from a data center a requirement does that requirement back up into mission requirements?

More

- **"Level" a red-herring**
  - Higher level is not necessarily better.
- **NewDISS applications centers will obtain ESE data products as input (and maybe using other data or information) produce special products or deliver tailored services to an applications community.**
  - But goal is not center, but rather function. An applications center is a virtual construct. Definition of data center type is arbitrary. Data centers can wear different hats. Centers are a management tool.
  - Looking at these functional attributes is examining the design rather than looking at the interface.
- **Market satisfaction can drive function - science can drive economy.**
- **The petri-dish - value chains - is more reasonable concept.**
  - The approach "types" "centers" prematurely.
  - What is purpose of typing? Codification of past? For purpose of the AO?
  - Suggest don't ask for "application centers" ask for :
    - solutions to problems
    - answers to questions
  - Segmentation based on operational functions is not necessarily useful.
- **Not just the data, but tools to handle the data.**
- **Clustering is the essential design decision**

More Questions

- **What guidelines would you like to see put in future AO [for any type of service provider] to ensure you (user/producer) obtain the things you need to perform your research, applications, or missions?**
  - Quarter of $ goes to application areas (Federation guideline)
    - Enlarge user base to enlarge budget.
    - Engender teaming as well as competition.
    - Collaboration and leveraging
    - Outsource functions -
      - when outside provider can do it at a lower cost.
      - Must define functions precisely
    - But still some basic things must happen
      - Data needs integrity, validity, to be protected, …
  - Open software, reusable content
  - You will abide by certain standards - such as ..
    - Every data provider must provide operable metadata associated with the data.
    - Data is subsettable, interoperable, layer over GIS
  - AO may require "team response"
    - But where are the science drivers?
    - Bits and pieces spread around?
  - Tell me what this data center need to do vs specifics of data center are not important.

Bonus Question:

- Going forward from this workshop, how can we frame the SEEDS discussion to engender the "deep involvement" by the user community.

3. Are there changes you would suggest in the classification of this provider type's level of service as minimum, recommended, desirable?

4. Are there additional or better levels of service for this provider type; or any that seem unreasonable to you as a user?

5. Is the mapping of requirements and levels of service to this provider type reasonable? Does the mapping reflect accurately the role of this provider type?